AMENDMENTS TO THE CLAIMS:

Please amend the claims to read as follows:

Listing of Claims:

- 1 1. (Currently Amended) A circuit, comprising:
- a filter processing element reconfigurable to process a signal by use of a at least one
- 3 process selected from a group consisting comprising of digital filtering, adaptive equalization.
- 4 resampling, despreading, and fast-Fourier transforming;
- 5 at least one decoding processing element to decode and correct errors in said signal;
- 6 a general purpose processing element to process said signal by use of an encoding at least
- 7 one code process selected from a reconfiguration group consisting comprising of deinterleaving,
- 8 descrambling, cyclic redundancy checking, convolutional encoding, Reed-Solomon encoding,
- 9 turbo encoding, and Trellis encoding; and
- one or more control units to direct the operations of the processing elements according to
- 11 a first set of protocols,
- wherein the processing elements are coupled in a network.
- 1 2. (Currently Amended) The circuit of claim 1, wherein said decode of said at least one decoding
- 2 processing element includes a at least one decode process selected from a reconfiguration group
- 3 eonsisting comprising of a first forward error correction decoding, Reed-Solomon forward error
- 4 correction decoding, turbo decoding, Trellis decoding, and Viterbi decoding.

Application No. 10/813,597 Atty, Docket No. P18368

- 1 3. (Original) The circuit of claim 1, wherein said one or more control units are implemented in
- 2 said filter processing element.
- 4. (Currently Amended) The circuit of claim 1, wherein said one or more control units are
- 2 implemented in said at least one decoding processing element or said general purpose processing
- 3 element.
- 5. (Original) The circuit of claim 1, wherein said one or more control units reconfigure the
- 2 processing elements to operate according to a second set of protocols.
- 6. (Currently Amended) The circuit of claim 5, wherein either of said first set and said second set
- 2 of protocols include parameters for operation within a network selected from a group eensisting
- 3 <u>comprising</u> of a wired <u>network</u>, a wireless <u>network</u>, a local area <u>network</u>, a wide area <u>network</u>,
- 4 and an optical network.
- 1 7. (Original) The circuit of claim 1, wherein said network further includes one or more routers.
- 8. (Currently Amended) The circuit of claim 1, further comprising:
- a communications interface to couple said processing elements to said network; and
- a supplemental processing element to transmit said signal on a communications path[[,]]
- 4 coupled to said communications infrastructure by network via said communications interface,

5	wherein said supplemental	processing element receives said	d signal after processing by said
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- 6 processing elements.
- 9. (Original) The circuit of claim 8, wherein said communications interface includes at least one
- 2 data router adapter.
- 1 10. (Currently Amended) A method, comprising:
- 2 determining operations of one or more <u>reconfigurable</u> processing elements according to a
- 3 first set of protocols;
- 4 receiving a signal from a network at a reconfigurable filter processing element;
- 5 processing said signal at said filter processing element by use of a at least one process
- 6 selected from a reconfiguration group consisting comprising of digital filtering, adaptive
- 7 equalization, resampling, despreading, and fast-Fourier transforming;
- 8 decoding said signal to decode and correct errors in said signal by at least one decoding
- 9 processing element; and
- processing said signal by a general purpose processing element by use of an encoding at
- 11 least one code process processing selected from a reconfiguration group consisting comprising of
- 12 deinterleaving, descrambling, cyclic redundancy checking, convolutional encoding, Reed-
- 13 Solomon encoding, turbo encoding, and Trellis encoding.
- 1 11. (Currently Amended) The method of claim 10, wherein said decode of said at least one
- 2 decoding processing element includes is reconfigurable to perform a at least one decode process

- 3 selected from a reconfiguration group eonsisting comprising of a first forward error correction
- 4 decoding, Reed-Solomon forward error correction decoding, turbo decoding, Trellis decoding,
- 5 and Viterbi decoding.
- 1 12. (Original) The method of claim 10, wherein said one or more control units are implemented
- 2 in said filter processing element.
- 1 13. (Currently Amended) The method of claim 10, wherein said one or more control units are
- 2 implemented in said at least one decoding processing element or said general purpose processing
- 3 element.
- 1 14. (Original) The method of claim 10, wherein said one or more control units reconfigure the
- 2 processing elements to operate according to a second set of protocols.
- 1 15. (Currently Amended) The method of claim 14, wherein either of said first set and said second
- 2 set of protocols include parameters for operation within a network selected from a group
- 3 eensisting comprising of a wired network, a wireless network, a local area network, a wide area
- 4 <u>network</u>, and an optical network.
- 1 16. (Original) The method of claim 10, wherein said network further includes one or more
- 2 routers.

1	17. (Original) The method of claim 10, further comprising:		
2	transmitting said signal by a supplemental processing element on a communications path		
3	after said signal is processed by said processing elements,		
4	wherein a communications interface couples said processing elements to said network,		
5	and wherein said network couples said supplemental processing element to said communication		
6	interface.		
1	18. (Original) The method of claim 17, wherein said communications interface includes at least		
2	one data router adapter.		
1	19. (Currently Amended) A machine readable computer-readable medium that provides		
2	instructions, which when executed by a processing element, cause the processing element to		
3	perform operations comprising micro-coded accelerator based operations of:		
4	receiving a signal from a network at a reconfigurable filter processing element;		
5	processing said signal at said filter processing element by use of a at least one process		
6	selected from a reconfiguration group eonsisting comprising of digital filtering, adaptive		
7	equalization resampling despreading and fast-Fourier transforming.		

processing element; and

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Examiner Baker Art Unit 2133

decoding said signal to decode and correct errors in said signal by at least one decoding

processing said signal by a general purpose processing element by use of an encoding at

least one code process processing selected from a reconfiguration group consisting comprising of

- 12 deinterleaving, descrambling, cyclic redundancy checking, convolutional encoding, Reed-
- 13 Solomon encoding, turbo encoding, and Trellis encoding.
- 20. (Currently Amended) The machine readable computer-readable medium of claim 19,
- 2 wherein said decode of said at least one decoding processing element includes is reconfigurable
- 3 to perform a at least one decode process selected from a reconfiguration group consisting
- 4 comprising of a first forward error correction decoding, Reed-Solomon forward error correction
- 5 decoding, turbo decoding, Trellis decoding, and Viterbi decoding.
- 1 21. (Currently Amended) The machine-readable computer-readable medium of claim 19,
- 2 wherein said one or more control units are implemented in said filter processing element.
- 1 22. (Currently Amended) The machine-readable computer-readable medium of claim 19.
- 2 wherein said one or more control units are implemented in said at least one decoding processing
- 3 element or said general purpose processing element.
- 1 23. (Currently Amended) The machine readable computer-readable medium of claim 19,
- 2 wherein said one or more control units reconfigure the processing elements to operate according
- 3 to a second set of protocols.
- 1 24. (Currently Amended) The machine-readable computer-readable medium of claim 23.
- 2 wherein either of said first set and said second set of protocols include parameters for operation

- 3 within a network selected from a group eensisting comprising of a wired network, a wireless
- 4 <u>network, a local area network, a wide area network, and an optical network.</u>
- 1 25. (Currently Amended) The machine-readable computer-readable medium of claim 19,
- 2 wherein said network further includes one or more routers.
- 1 26. (Currently Amended) The machine-readable computer-readable medium according to claim
- 2 19, providing further instructions, which when executed by a processing element, cause the
- 3 processing element to perform a further operation of:
- 4 transmitting said signal by a supplemental processing element on a communications path
- 5 after said signal is processed by said processing elements,
- 6 wherein a communications interface couples said processing elements to said network,
- 7 and wherein said network couples said supplemental processing element to said communications
- 8 interface.
- 27. (Currently Amended) The machine readable computer-readable medium of claim 26.
- 2 wherein said communications interface includes at least one data router adapter.